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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,338	10/19/2005	Ludovic Poupinet	123936	5788

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EXAMINER	
HIGGINS, GERARD T	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
07/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,338	POUPINET ET AL.	
	Examiner	Art Unit	
	GERARD T. HIGGINS	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed 05/21/2008 has been entered. Currently claims 12-22 are pending and claims 1-11 are cancelled.

Claim Objections

2. Claims 16 and 19 are objected to because of the following informalities: the phrase “an atomic percentage of” is awkward as it does not belong in these claims. Applicants might have been confused by the Examiner's rejection in section 4 in the office action mailed on 02/21/2008; however, what the Examiner was trying to say was that only claim 13 needed the phrase “an atomic percentage of,” and not claims 13, 16, and 19. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Since applicants have amended independent claim 12 to recite “consisting of” instead of comprising, this renders claim 13 indefinite since it seeks to claim an “alloy comprising an atomic percentage of 65% of zinc and 35% of tellurium."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 12-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (4,405,706).

With regard to claims 12 and 13, Takahashi et al. teach a “heat mode” recording layer, which is equivalent to ablation recording, thermal deformation, or mechanical deformation recording, comprised of the metals seen at col. 3, line 52 to col. 4, line 19. They specifically mention at col. 3, lines 56-58 that the metals may be used alone or in combination, and the preferable metals include zinc and tellurium. The recording layer of Takahashi et al. would necessarily comprise a front face and a rear face; however, Takahashi et al. fail to disclose the specific atomic percentage range of applicants’ claim 12 and the more specific exact atomic percentages of applicants’ claim 13.

It is well-known in the field of optical recording media to experimentally vary the percentages of metals contained with the alloy of a recording layer, and therefore it would have been obvious to one having ordinary skill in the art at the time the invention

was made to experimentally vary the atomic percentages of zinc and tellurium in Takahasi et al.'s recording layer to whatever ratio, including those claimed. Takahashi et al. disclose at col. 4, lines 1-11 that zinc and tellurium are known for promoting sensitivity in the recording layer. As such it would have been obvious to one having ordinary skill in the art at the time the invention was made to test all percentages of the preferable metals, zinc and tellurium, to discover the appropriate percentages that had the greatest sensitivity and largest signal-to-noise with respect to heat mode recording.

With regard to claim 14, Takahashi et al. disclose that the active alloy layer would be 5 to 200 nm thick, which completely encompasses applicants' claimed range (col. 3, lines 59-63).

With regard to claim 17, there may be an additional metal layer laminated on the rear face of the recording layer (col. 4, lines 3-4).

With regard to claim 18, the additional metal layer may be 1 to 150 nm thick, which completely encompasses applicants' claimed range (col. 4, lines 27-33).

With regard to claim 19, the additional metal layer may comprise *inter alia* silver and copper (col. 4, line 9).

With regard to claim 20, there may be a protective covering on the rear face of the recording layer (col. 4, lines 34-65).

7. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (4,405,706), as applied to claim 12, in view of either Stevens (6,177,168) or Holster et al. (4,450,553).

Takahashi et al. disclose all of the limitations of applicants' claim 12 in section 6 above; however they fail to specifically disclose a semi-reflective layer arranged on the front face having a thickness of 4-10 nm and made of the metals or an alloy of the metals in claim 16.

Stevens or Holster et al. both teach semi-reflective layers for use in optical recording media. Stevens teaches a gold semi-reflective layer on the front-face of two recording layers in a dual-sided recording medium. Holster et al. teach a zinc selenide partial reflective layer in a single-sided dual recording layer recording medium (col. 10, lines 31-54).

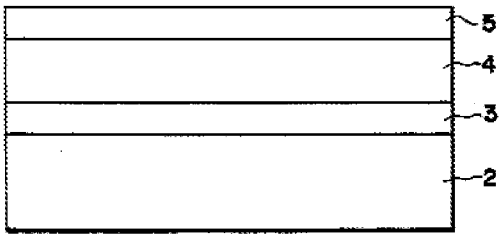
Since Stevens, Holster et al. and Takahashi et al. are all drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place an additional layer 10 nm thick semi-reflective layer on the front face side of the recording medium. Semi-reflective layers are well-known in the field of optical recording media, and furthermore one of ordinary skill would have recognized that the results of the combination would have been predictable. These layers are known to allow tuning of the light intensity that reaches the recording layer or any other subsequent layer. Additionally, one of ordinary skill would have recognized that each of the elements would have performed the same in combination as they had separately.

8. Claim 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (4,405,706), as applied to claim 20, in view of Tamura et al. (5,354,590).

Takahashi et al. disclose all of the limitations of claim 20 in section 6 above. They also disclose that the protective layer may be 0.01 to 500 microns; however they fail to disclose using polydimethylsiloxane-based protective layer or that the protective layer is deformable.

Tamura et al. disclose the optical recording medium of Figure 1.

FIG. 1



The device comprises a recording layer **3** and a protective (recording-assistance) layer **4** situated on the back face thereof. The layer **4** is disclosed at col. 3, lines 27-39, included in these are silicone rubbers. The thickness of the layer **4** is disclosed at col. 7, lines 8-10, included in this is the range of 3-50 microns. Tamura et al. also disclose a "hardness after cure" at col. 4, lines 28-34. The Examiner takes the position that these hardness factors would include a deformable-type silicone rubber. Additionally, the terms "silicone rubber" and "elastic polymer" both imply a flexible and deformable material.

Since Shigematsu et al. and Tamura et al. are both drawn to optical recording media, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the prior art recording layer of Shigematsu et al. with the recording-assistance/protective layer of Tamura et al. The results of which would have been obvious to one having ordinary skill, specifically one would have expected the sensitivity of the recording layer to improve and the device would have been further protected from mechanical deformation. Additionally, one of ordinary skill would have recognized that each of these elements would have performed the same in combination as they had separately. The motivation for using a silicone protective layer would be to provide an optical recording medium that was less likely to scratch or be destroyed by the environment.

Polydimethylsiloxane is a form of silicone rubber and it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polydimethylsiloxane form of silicone rubber as the silicone rubber layer of Tamura et al.; further, it would have been obvious to vary the hardness of the polydimethylsiloxane to degree desired by applicants. One of ordinary skill would understand altering the hardness factor to arrive at a recording medium that would be properly protected from scratches.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 12-22 of this application conflict with claims 12-22 of Application No. 10/535,411. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

10. Claims 12-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12-22 of copending Application No. 10/535,411. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both related to an optical recording medium that has an active layer of inorganic material, a front face, and

a rear face; however, the copending Application No. 10/535,411 fails to include an active layer of the percentages of zinc and tellurium as seen in the present application. Yet one can look to claim 15 of the copending application to see that the percentages of zinc and tellurium are contained within that application, and would form a deformable recording layer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

11. Applicant's arguments, see Remarks, filed 05/21/2008, with respect to the objection to claim 12, and also the rejection of claims 13, 16, and 19 under 35 U.S.C. 112, second paragraph, claims 12, 14, and 17-20 under 35 U.S.C. 102(b) as being anticipated by Shigematsu et al. (EP 0387016), claims 15 and 16 under 35 U.S.C. 103(a) as being unpatentable over Shigematsu et al. (EP 0387016), as applied to claim 12, in view of either Stevens (6,177,168) or Holster et al. (4,450,553), and claims 21 and 22 under 35 U.S.C. 103(a) as being unpatentable over Shigematsu et al. (EP 0387016), as applied to claim 20, in view of Tamura et al. (5,354,590) have been fully considered and are persuasive. The relevant objection/rejections have been withdrawn; specifically, applicants are correct in stating that Shigematsu et al. is drawn to a recording layer comprised of zinc, tellurium, and germanium, and therefore cannot meet the new limitations of claim 1.

12. Applicant's arguments filed 05/21/2008 have been fully considered but they are not persuasive.

Applicants are arguing two points. First, that the recording method taught by Takahashi et al. is a phase change type recording method, and therefore is not analogous to the ablation type recording being performed in applicants'' invention. Second, the Examiner did not provide a rationale for varying the percentages of tellurium and zinc in the recording layer of Takahashi et al., and is therefore relying on hindsight to arrive at applicants' claimed invention.

First, with all due respect applicants are incorrect in stating that Takahashi et al. teach a phase change type recording medium. Takahashi et al. teach a "heat mode" recording medium, which the Examiner pointed out in the office action mailed 02/21/2008. The Examiner has included a reference (US 4,370,391), which shows that "heat mode" does in fact mean laser ablation or mechanical deformation, and not phase change (please see col. 1, lines 10-28); further, applicants are pointing to the prior art section of Takahashi et al. to support their argument that Takahashi et al. teach phase change layers; however, the Examiner notes that at col. 1, lines 23-26 of Takahashi et al. state that the recording laser beam causes evaporation to take place in the recording layer. Evaporation is clearly not a phase change.

Even having said all that, it is noted that the features upon which applicant relies (i.e., mechanical deformations) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are

not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Second, the Examiner did provide a rationale for varying the percentages of zinc in tellurium in the office action mailed on 02/21/2008; specifically, the Examiner stated that the zinc and tellurium are known to affect the sensitivity of the recording layers; therefore, in the Examiner's opinion, absent objective evidence to the contrary, it would have been obvious to one having ordinary skill in the art at the time the invention was made to test all percentages of the preferable metals, zinc and tellurium, to discover the appropriate percentages that had the greatest sensitivity and largest signal-to-noise with respect to the heat mode recording being performed in Takahashi et al.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The Examiner deems that the sensitivity of the recording layer and signal-to-noise concerns are well-known to those of ordinary skill in the art of optical recording media.

13. The Examiner notes that "[i]f a "provisional" nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer." Please see MPEP 804; however, since there remain other grounds for rejection in this case, the Examiner has repeated his provisional ODP rejection.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Examiner has included the reference concerning heat mode recording to which he previously referred.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-F 7:30am-5pm est. (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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